



Winston H. Hickox  
Agency Secretary

# Air Resources Board

Alan C. Lloyd, Ph.D.  
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



Gray Davis  
Governor

September 23, 2003

James E. Peeples  
Executive Vice President  
O<sub>2</sub>diesel, Inc.  
200 Executive Drive  
Newark, Delaware 19702

Dear Mr. Peeples

Thank you for your letter requesting verification of the emission reductions associated with the use of the O<sub>2</sub>diesel's, ethanol-diesel fuel (O<sub>2</sub>Diesel™). The emission reductions were determined pursuant to the Air Resources Board's (ARB) "Interim Procedure for Verification of Emission Reductions for Alternative Diesel Fuels".

The ARB staff has reviewed your submitted data and conditionally verifies O<sub>2</sub>Diesel™ results in a 1.6 percent reduction in oxides of nitrogen emissions and a 20 percent reduction in particulate matter emissions obtained in accordance with the interim procedure. Also, staff has determined that measurements of specified emissions indicate no net increase in toxicity, and that hydrocarbon emissions are at least 25 percent lower than any applicable diesel vehicle emission standard.

O<sub>2</sub>Diesel™ conditional verification of emissions reductions applies to the use of O<sub>2</sub>Diesel™ as allowed for under existing United States Environmental Protection Agency (U.S. EPA) and the California Department of Food and Agriculture, Division of Measurement Standards (DMS) regulations. If the U.S. EPA and the DMS revise their regulations, the ARB may amend the conditions of verification. Also, the conditional verification of emission reductions does not address the appropriate use of O<sub>2</sub>Diesel™ in regards to possible impacts on fuel safety and handling, engine durability or performance and does not address possible multi-media environmental impacts that may result from the use of O<sub>2</sub>Diesel™. Please note that the ARB staff may modify or withdraw verification based on evidence supported by a multi-media assessment or future durability and safety evaluations of the fuel.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

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If you have any questions, please contact me at (916) 322-6020 or Mr. Gary M. Yee, Manager, Industrial Section at (916) 322-5986.

Sincerely,



Dean C. Simeroth, Chief  
Criteria Pollutants Branch

Enclosure

cc: Mr. Gary M. Yee, Manager  
Industrial Section

## CONDITIONS OF VERIFICATION OF EMISSION REDUCTIONS

The Air Resources Board's (ARB's) conditional verification of emission reductions of the O<sub>2</sub>Diesel's ethanol-diesel fuel O<sub>2</sub>Diesel™ is subject to the following:

1. The Applicant shall use O<sub>2</sub>Diesel™ fuel as allowed for under existing United States Environmental Protection Agency (U.S. EPA) and the California Department of Food and Agriculture, Division of Measurement Standards (DMS) regulations. If the U.S. EPA and the DMS revise their regulations, the ARB may amend the conditions of verification.
2. All equipment used to dispense and store O<sub>2</sub>Diesel™ must be approved by the State and local fire marshals, as applicable.
3. All equipment used to dispense and store O<sub>2</sub>Diesel™ shall comply with the recommendations contained in the National Renewable Energy Laboratory Final Report No. SR-540-34817, Safety and Performance Assessment of Ethanol/Diesel Blends (E-Diesel). These recommendations include:
  - Limiting sales to and use by centrally-fueled vehicles.
  - Equipping all fuel storage tank vents and the vehicle tank vent and fill openings with flame arresters designed for use with ethanol, or deploying posi-lock type fueling devices and equipped with effective vapor recovery systems.
  - Conducting extensive site inspections at fleet locations.
  - Establishing an electrical ground connection between the vehicle and the fueling station fuel dispenser.
  - Ensuring that vehicle fuel tank level detectors are of an intrinsically safe design.
  - Providing extensive training to fleet personnel to ensure they understand the differences between O<sub>2</sub>Diesel™ and diesel fuel and employ practices that consider those differences.
  - Additional requirements may be required based on recommendations of future research studies.
4. The Applicant shall continue to evaluate fuel safety and monitor the operations of fleets using O<sub>2</sub>Diesel™.
5. In cooperation with appropriate agencies, the Applicant shall evaluate the impact of O<sub>2</sub>Diesel™ on evaporative vehicle emissions in fleets using its fuel.
6. The Applicant shall provide an annual summary ending each calendar year, specifying the total volume of O<sub>2</sub>Diesel™ fuel marketed for use or

sale in California, the total number of California fleets using the fuel and the criteria specified in conditions 4 and 5. The summary shall be submitted to the ARB by January 31 each year at the following address:

Air Resources Board  
Criteria Pollutants Branch  
P.O. Box 2815  
Sacramento, California 95812

7. The O<sub>2</sub>Diesel™ additive formulation and dosage rate shall be as specified in the original application.
8. Any violation of the terms of these conditions shall cause the verification of emission reductions of the O<sub>2</sub>Diesel™ to be void.